

## **Preliminary Power Line Information: Eastern Montana Co-ops Serving in Sage Grouse Country**

### **1. Typical Co-op "Service" Lines**

These are the power lines that tap into the distribution line (less than 25 kV) and run to the farm or ranch or other premises where the electricity is consumed.

Length varies but the average is probably around 2 miles. Voltage is usually 7.2kV but at least one of the co-ops has 14.4 kV for its service lines.

Fergus Electric Cooperative, serving vast areas of central Montana, reports the following: "Each year we receive requests to build an extension up to 3 miles (We completed a 10 mile extension last year for one project) but they are not the norm. This is not to say that it does not happen."

If these power lines, which frequently will be longer than 1,000 feet, were subject to the need to keep a 4 mile or more distance from leks, the costs would be considerable to maintain those kinds of distance. At rough estimate for overhead of \$30,000 a mile, would easily cost \$90,000 or more to maintain those distances. Costs for these service lines are borne entirely by the consumer receiving the service so it wouldn't take much to make it unaffordable for a farmer or rancher to obtain power service for an irrigation pivot, stock well, etc.

### **2. Distribution Power Lines**

These are the power lines that form sort of the backbone of the co-op. They are the power lines used to feed individual services. For co-ops, distribution power lines are typically 7.2 kV or 14.4 kV but also can be 12.5 kV.

These power lines run for hundreds, sometimes thousands of lines. Fergus Electric Cooperative – serving in central Montana – has 3,989 miles of distribution power line. Fergus Electric has .89 members per linear mile of power line. The co-op serves parts of 12 counties in central Montana.

NorVal Electric Cooperative- serving in part of northeastern Montana – 1,500 miles of distribution power line. NorVal Electric has .87 members per linear mile of power line.

### **3. Transmission Power Lines**

For co-ops, most transmission lines are 69 kV or 34.5 kV. Some are 50 kV.

Fergus Electric Cooperative has 245 miles of transmission power line. (Including current plans to rebuild a 25 mile section).

NorVal Electric Cooperative has 193 miles of transmission power line.